

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Plant Abstract

Element Code: PDPGN085T2
Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Eriogonum thompsonae* Wats. var. *atwoodii* Reveal
COMMON NAME: Atwood Wild Buckwheat
SYNONYMS:
FAMILY: Polygonaceae

AUTHOR, PLACE OF PUBLICATION: Reveal, J.L. 1974. Great Basin Naturalist 34(3): 245-246.

TYPE LOCALITY: Along Arizona Highway 389, 4.3 mi. west of the junction of Highway U.S. 89A at Fredonia, Arizona.

TYPE SPECIMEN: US! Reveal and Reveal (3211) 15 August 1973.

TAXONOMIC UNIQUENESS: One of three varieties of *E. thompsonae*. White flowers distinguish *E.t. atwoodii* from the yellow flowered typical variety. *E.t. atwoodii* differs from *E.t. albiflorum* by having long, narrowly linear leaves.

DESCRIPTION: Low, spreading herbaceous perennial up to 60.0 cm (24 in.) wide and tall. Leaves linear, 3.0-8.0 cm (1.2-3.2 in.) long, and taper into an indistinguishable petiole; **leaves sparsely white-hairy beneath**; leaf margins are thickened or inrolled. Broad umbrella shaped inflorescence with numerous small white flowers.

AIDS TO IDENTIFICATION: Three species of shrubby *Eriogonum* occur together in the same habitat. The leaves of *E.t. atwoodii* are tomentose (hairy) underneath, *E. mortonianum* has glabrous (unhaired) leaves underneath, and *E. corymbosum* is densely white tomentose on both leaf surfaces. After the leaves fall, *E. mortonianum* is almost impossible to distinguish from *E. thompsonae atwoodii*. Hybrid intermediates are at least as common as the parent taxa (Phillips 1999).

ILLUSTRATIONS: Line drawing (USFWS)
Color photos (Reveal, in <http://www.life.umd.edu/flower/1569b.jpeg>)

TOTAL RANGE: Near Fredonia, and near Lost Spring Mountain, Mohave County, Arizona. Also reported from Utah.

RANGE WITHIN ARIZONA: See "Total Range."

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous Perennial

PHENOLOGY: Flowers and sets seed from July to October.

BIOLOGY: This appears to be an extremely rare species which is strongly habitat restricted. It grows with *E. mortonianum* and hybridizes with it, producing an interesting series of intermediates, although the two taxa are not closely related.

- HABITAT:** Usually along small drainages in red clay/gypsum hills.
- ELEVATION:** 4,400 - 4,700 feet (1342 -1434 m).
- EXPOSURE:** All
- SUBSTRATE:** Near Fredonia: shallow soils on red clay hills of Moenkopi sandstone and shales. Near Lost Spring Mountain: red gypsum loam.
- PLANT COMMUNITY:** Great Basin Desertscrub. With: *Artemisia bigelovii*, *Atriplex confertifolia*, and *Hilaria jamesii* near Fredonia. *Atriplex*, *Salvia*, *Ephedra*, *Hilaria*, and *Chrysothamnus* near Lost Spring Mountain.
- POPULATION TRENDS:** Phillips (1979) reported a population of about 750 individuals of several size/age classes limited to a 2 km² area near Fredonia. Phillips did not find this species near Lost Spring Mountain.

SPECIES PROTECTION AND CONSERVATION

- ENDANGERED SPECIES ACT STATUS:** None (USDI, FWS 1996)
[Category 2 USDI, FWS 1983]
[Category 1 USDI, FWS 1980]
[PE USDI, FWS 1976]
[PTN-E USDI, FWS 1975]
- STATE STATUS:** Salvage Restricted (ARS 1993)
- OTHER STATUS:** Forest Service Sensitive (USDA, FS Region 3 1990, 1999)
- MANAGEMENT FACTORS:** The population is scattered across a highway right-of-way and is threatened by right-of-way maintenance, overgrazing, brush clearing, burning, and off-road vehicle use.
- CONSERVATION MEASURES TAKEN:**
- SUGGESTED PROJECTS:** Monitor. Relocate Lost Spring Mountain population.
- LAND MANAGEMENT/OWNERSHIP:** BIA - Kaibab-Paiute Reservation; BLM - Arizona Strip Field Office; Arizona State Land Department (highway right-of-way).

SOURCES OF FURTHER INFORMATION

LITERATURE CITATIONS:

- Arizona Revised Statutes, Chapter 7. 1993. Arizona Native Plant Law. Appendix A:11.
- Phillips, A.M., III. 1979. Field searches and studies on certain proposed threatened and endangered plant species, Arizona Strip District. Submitted to Arizona State Office, Bureau of Land Management, Phoenix, Arizona.
- Phillips, A.M., III. L.T. Green III and J. Mazzone. 1980. Status report *Eriogonum thompsonae* S. Wats. var. *atwoodii* Reveal. Submitted to U.S. Fish and Wildlife Service, Albuquerque, New Mexico. 9 pp.
- Phillips, A. 1999. *Eriogonum thompsonae* Wats. var. *atwoodii* Reveal (Atwood Wild Buckwheat), Polygonaceae. Draft abstract from Arizona Rare Plant Book, in prep.
- Reveal, J.L. 1974. Two new varieties of *Eriogonum* (Polygonaceae) from the intermountain region. Great Basin Naturalist 34(3):245-246.
- Reveal, J.L. 1976. *Eriogonum* (Polygonaceae) of Arizona and New Mexico. Phytologia 34:409, 440.
- USDA, Forest Service Region 3. 1990. Regional Forester's Sensitive Species List.

- USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.
- USDI, Fish and Wildlife Service. 1975. Threatened or Endangered Fauna or Flora. Federal Register 40(127):27829.
- USDI, Fish and Wildlife Service. 1976. Endangered and Threatened Species. Plants. Federal Register 41(117):24560.
- USDI, Fish and Wildlife Service. 1980. Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species. Federal Register 45(242):82508.
- USDI, Fish and Wildlife Service. 1983. Endangered and Threatened Wildlife and Plants; Supplement to Review of Plant Taxa for Listing; Proposed Rule. Federal Register 48(229):53650.
- USDI, Fish and Wildlife Service. 1996. Endangered and Threatened Wildlife and Plants; Review of Plant and Animal Taxa that are Candidates for Listing as Endangered or Threatened Species; Notice of Review, Proposed Rule. Federal Register 61(40):7596-7613.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

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ADDITIONAL INFORMATION:

Phillips (1980) recommends that this species be listed Endangered under the Endangered Species Act.

May/June 1992 many plants within the right-of-way of Highway AZ 389 were destroyed during road maintenance activities.

Revised:	1991-12-11 (JGH)
	1992-06-01 (BKP)
	1992-09-14 (BKP)
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